ANIMAL BEHAVIORAL STUDY

MESH FENCING VS. Animex

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WHY?

- REPORTS OF ANIMALS ENTANGLED, TRAPPED + CLIMBING MESH
- ANIMALS FOUND DEAD ON ROADS DESPITE FENCING BEING ERECTED
- FENCES ARE NOT MONITORED 24/7 TO OBSERVE ANIMALS BEHAVIOR
“WE WANTED TO SEE WHAT REALLY HAPPENS WHEN HERPETOFAUNA ENCOUNTER FENCING...”
METHODOLOGY

- 16FT PEN
- 24” HIGH
- 2 SIDES ¼ STEEL MESH 2 SIDES ANIMEX
- VEGETATION KEPT LOW ADJACENT TO FENCE
- ANIMALS CAPTURED THEN RETURNED AFTER 24HRS
- OBSERVED FROM A DISTANCE TO ENCOURAGE NATURAL BEHAVIOR

FROGS: 20
18 GREEN FROGS, 2 NORTHERN LEOPARD
- 1HR @ SUNSET WILD

SNAKES: 17
16 EASTERN GARTER, 1 RED-BELLY
- 1HR AM & 1HR PM WILD

TURTLES: 14
7 MIDLAND PAINTED, 7 SNAPPING
- 1HR AM & 1HR PM CAPTIVE

All common species
OBSERVATIONS

1. TIME SPENT IN EACH FENCE ZONE
2. TYPICAL INTERACTIONS WITH FENCING
3. CLIMBING + ESCAPE ATTEMPTS
TIME AT EACH FENCE AREA

TURTLES
- Mesh: 28%
- Animex: 16%
- Between: 56%

FROGS
- Mesh: 21%
- Animex: 6%
- Between: 73%

SNAKES
- Mesh: 28%
- Animex: 16%
- Between: 56%

ALL
- Mesh: 22%
- Animex: 18%
- Between: 60%

83 HOURS TOTAL

WITHIN 40CM OF THE FENCE LINE
TYPICAL INTERACTIONS WITH FENCING

% OF TRIALS WITH OBSERVED BEHAVIOR
ATTENTION!

NO ANIMALS WERE HARMED IN THE MAKING OF THIS PRODUCTION

(SORRY FOR THE SHAKEY FILM, WE ARE BIOLOGISTS NOT CAMERA OPERATORS)
Search for shade: 25%
Grabbing mesh: 64.28%

Speed x1.5

MIDLAND PAINTED TURTLE
Jump at Animex: 5%
Jump at mesh: 90%

GREEN FROG
SNAKE INTERACTIONS

Search for shade: 44.44%
Stuck snout at mesh: 94.44%

EASTERN GARTER SNAKE
INTERACTIONS

% TRIALS WITH OBSERVED BEHAVIOR

- MESH
- Animex

**TURTLES**
- Grabbing: 64.28%
- Searching for shade: 21%

**SNAKES**
- Sticking snout out: 94.12%
- Searching for shade: 16.67%

**FROGS**
- Jumping: 90%
- Jumping: 5%
CLIMBING + ESCAPE ATTEMPTS

NUMBER OF INDIVIDUAL ATTEMPTS
Snakes Climbing

28 Mesh Escapes

Eastern Garter Snake
NORTHERN LEOPARD FROG
TURTLES CLIMBING
3 MESH ESCAPES

SNAPPING TURTLE
CONCLUSION

1. **ABILITY TO SEE + SMELL THROUGH = MORE TIME AT MESH**

2. **RISK OF LACERATIONS, ENTRAPMENTS + ESCAPES = MESH**

3. **ABILITY TO CLimb ELIMINATED = ANIMEX GLOSSY SURFACE**
FURTHER STUDY

This study has influenced further research projects comparing the effectiveness of different fencing materials and opacities to help inform future mitigation recommendations for herps across California.
THINK ABOUT FENCING...

Thank You!

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